

*Genoa and 97° at Omaha. *Indian Territory*: 94° at Ft. Sill. *Minnesota*: 88° at St. Paul. *Dakota*: 95° at Deadwood and Ft. Buford. *Colorado*: 106° at *Ft. Lewis, 96° at Denver. *New Mexico*: 104° at La Mesilla. *Wyoming*: 100° at *Ft. Fetterman and 97° at Cheyenne. *Utah*: 93° at Salt Lake City. *Nevada*: 94° at Winnemucca. *Arizona*: 117° at Phoenix, 114° at Florence, and 110° at Tucson, Yuma and Burkes. *Idaho*: 91° at Boise City. *Montana*: 100° at Ft. Keogh. *California*: 99° at Visalia and Red Bluff, and 73° at San Diego. *Oregon*: 103° at Umatilla. *Washington Territory*: 90° at Olympia.

Those marked with a star (*) are reported by U. S. Army Post Surgeons or Voluntary Observers.

Minimum Temperatures.—*Maine*: 41° at *Orono and 43° at Eastport. *New Hampshire*: 28° on the summit of Mt. Washington, 38° at *Dunbarton and *Grafton. *Vermont*: 40° at *Lunenburg and 41° at Burlington. *Massachusetts*: 42° at *South Lee and 48° at Boston. *Rhode Island*: 49° at Newport. *Connecticut*: 46° at *Mystic and 47° at New Haven. *New York*: 38° at *Schroon Lake and 42° at Buffalo. *New Jersey*: 46° at *Dodge Mine. *Pennsylvania*: 37° at *Dyberry and 49° at Pittsburg. *Delaware*: 56° at *Dover. *Maryland*: 45° at *Woodstock, 52° at Baltimore. *District of Columbia*: 49° at Washington. *Virginia*: 42° at *Mt. Solon and *Wytheville, and 49° at Lynchburg. *West Virginia*: 38° at *Helvetia and 46° at Morgantown. *North Carolina*: 48° at *Franklin and 52° at Charlotte. *South Carolina*: 62° at Charleston. *Georgia*: 58° at Atlanta. *Florida*: 65° at Cedar Keys. *Alabama*: 68° at Mobile, Montgomery and *Green Spring. *Mississippi*: 63° at Vicksburg. *Louisiana*: 63° at Shreveport. *Texas*: 44° at Ft. Elliott, 53° at Stockton and 72° at Laredo. *Ohio*: 44° at *Westerville and 46° at Cleveland. *Kentucky*: 52° at Louisville. *Tennessee*: 52° at Knoxville. *Arkansas*: 50° at *Mt. Ida and 60° at Little Rock. *Michigan*: 37° at Marquette and 46° at *Lansing. *Indiana*: 50° at *New Harmony and *Lacoma, and 54° at Indianapolis. *Illinois*: 43° at *Marengo and 52° at Chicago. *Missouri*: 44° *Pierce City and 57° at St. Louis. *Kansas*: 45° at *Wellington and 57° at Dodge City. *Wisconsin*: 36° at *Ashland, 48° at La Crosse. *Iowa*: 42° at *Nora Springs, 50° at Dubuque. *Nebraska*: 42° at North Platte. *Indian Territory*: 55° at Ft. Sill and Fort Gibson. *Minnesota*: 37° at Breckenridge. *Dakota*: 33° at Deadwood, 39° at Ft. Buford. *Colorado*: 8° on summit of Pikes Peak, 19° at *Summit and 24° at *Ft. Garland. *New Mexico*: 33° at Santa Fé. *Wyoming*: 30° at *Ft. Fetterman and 37° at Cheyenne. *Utah*: 40° at Salt Lake City. *Nevada*: 29° at Winnemucca. *Arizona*: 32° at Prescott. *Idaho*: 40° at Boise City. *Montana*: 38° at Ft. Keogh. *California*: 31° at Campo, and 47° at Red Bluff and Visalia. *Oregon*: 37° at Roseburg. *Washington Territory*: 36° at Olympia.

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Ranges of Temperatures at Signal Service Stations.—The monthly ranges will appear from the maxima and minima just given. The greatest daily ranges vary in New England from 17° on the summit of Mt. Washington, to 30° at Springfield and Boston, and 33° at Burlington; Middle Atlantic States, 20° at Cape May, to 26° at Albany and 31° at Norfolk; South Atlantic States, 14° at Cape Look-out, to 21° at Jacksonville, and 28° at Wilmington and Smithville; East Gulf States, 16° at Key West, to 24° at Mobile and Montgomery, and 26° at Pensacola; West Gulf States, 15° at Galveston, to 26° at Little Rock and 29° at Corsicana; Ohio valley and Tennessee, 21° at Cairo, to 28° at Pittsburg, and 29° at Nashville and Knoxville; Lower Lake region, 21° at Sandusky, to 29° at Rochester; Upper Lake region, 21° at Chicago, to 28° at Marquette and Alpena; Upper Mississippi valley, 21° at Davenport, to 25° at St. Louis and 30° at St. Paul; Red River of the North valley, 31° at Pembina, to 36° at Breckenridge; Missouri valley, 25° at Leavenworth, to 32° at Omaha and Bismarck, and 33° at Yankton; Texas, 27° at San Antonio and Denison to 42° at Ft. Elliott; Eastern Rocky Mountain slope, 29° at Ft. Sill, to 38° at Deadwood and 40° at North Platte; Rocky Mountains, 29° at summit of Pike's Peak, to 40° at Santa Fé and 45° at Cheyenne; Middle Plateau District, 36° at Salt Lake City, to 39° at Boise City, and 51° at Winnemucca; California, 22° at San Francisco, to 37° at Red Bluff, and 40° at Visalia.

Frost.—*Wisconsin*—Embarrass, 1st. *Dakota*—Pembina, 1st. *Nebraska*—Austin, 1st, injuring vegetation slightly; North Platte, 28th, "light hoar frost." *Pennsylvania*—Dyberry, 4th. *California*—Ft. Bidwell and Salinas City, 18th; Yreka, 19th, "seriously damaging fruit and growing crops;" Campo, 23d, 24th, heavy, 25th. *Colorado*—Pike's Peak, 22d, 25th. *New York*—Waterburg, 2nd, 3rd, 4th; Palermo, 2nd, 3rd; North Volney, 2nd, 4th; Niles, 2d. *Washington Ty.*—Olympia, 15th. *Vermont*—Woodstock, 3d, slight. *Utah*—Coalville, 11th, hoar.

Ice.—Winnemucca, Nev., 5th, 10th, 20th. Yreka, Cal., 19th, "in some localities."

PRECIPITATION.

The general distribution of the rain-fall, for June, 1880, is shown on chart No III, as accurately as possible from about 500 reports. In a table on this chart will be found the average precipitation for June, as compared with that of the present month. The rain has been unusually local in its character. The greatest deficiency (Lower Missouri valley, 3.02 inches) occurred adjacent to the greatest excess, (2.40 inches) in Minnesota. The other great departures from the normal reported, are: New England, 2.01 inches deficient; South Atlantic States, 2.78 deficient; Upper Lake region, 1.49 excess, and Western Gulf States, 1.52 excess. For the fifth successive month marked deficiencies have been reported from the greater part of the Atlantic slope. Since January 1st, 1880, the rain-fall has been deficient on that slope as follows: New England, 3.44 inches; Middle Atlantic States, 4.93 in., and South Atlantic States, 5.72 in. In connection with this deficiency serious droughts are reported in New Jersey, portions of New York and

Pennsylvania, and of less severity from the interior of New England. Exceedingly heavy rains in the Upper Mississippi and the Ohio valleys, at various times during the month caused extensive freshets, which are elsewhere noted in detail.

Special Heavy Rains.—1st, Denison, Tex., 3.36 inches. 3rd, Cedar Keys, Fla., 2.98; Rock Island, Ill., 3.74. 4th, Independence, Ia., 3.00; Manhattan, Kan., 2.28; Breckenridge, Minn., 2.77; Dubuque, Ia., 2.95; Davenport, Ia., 3.50; Lawrence, Kan., 1.80, 2 hours and 45 minutes; Le Claire, Ia., 2.94; 4th and 5th, Duluth, Minn., 3.02. 5th, Monticello, Ia., 2.75; Northpoint, Mich., 5th to 7th, 6.70, 5.20 in one day; Alpena, Mich., 5th and 6th, 2.83. 6th, Marquette, Mich., 2.45. 9th, Oregon, Mo., 2.07; 9th and 10th, Embarrass, Wis., 4.30. 11th, Baltimore, 2.66; Duluth, Minn., 2.80; Norfolk, 11th and 12th, 3.30. 13th, Rockford, Ill., 2.89; Vevay, Ind., 1.85 in one hour; Ft. Hartsuff, Neb., 3.97; 13th and 14th, Lansing, Mich., 3.96; Ponca, Nebr., 4.75; Helvetia, W. Va., 3.03. 14th, Cumberland, Md., 3.60; Madison, Wis., 3.47; Cincinnati, 2.52; Bethel, Ohio, 3.85; near Cincinnati 4.00, 1 inch fell in 30 minutes and 3 inches in 3 hrs. 15th, Cape Hatteras, N. C., 2.95; New Geneva, Pa., 3.03; Confluence, Pa., 2.20. 21st, Silver City, N. M., 0.93; Fall river, Mass., 0.67 in 15 minutes. 23rd and 24th, Thomasville, Ga., 2.55; 23rd, Galveston, 2.55 in 4 hrs 15 min.; 23rd and 24th, Ft. Wallace, Kan., 5.37. 24th, Galveston, 2.56 in 8 hrs; Helena, Ark., 2.00. 25th, Detroit Mich., 1.56 in 8 hrs. 26th, Stockton, Tex., 1.09 in 22 min. 27th, Corning, Mo., 1.45 in 10 min.; Lynchburg, 1.00 in 20 min. 28th, Anna, Ill., 2.50; Denison, Tex., 3.60; Melissa, Tex., 2.00 in 6 hrs. 29th, Ft. Elliott, Tex., 2.40; Wellsburg, W. Va., 2.37 in 21 hrs; Evansville, Ind., 2.50. 30th, Yates Centre, Kan., 1.00 in 1 hour; Cape Lookout, N. C., 4.04; Creswell, Kan., 3.50 in 1½ hour; Ashwood, Tenn., 1.30 in 90 minutes.

Largest Monthly Rainfalls.—Mt. Auburn, Ohio, 13.47 inches; Embarrass, Wis., 11.40; Northport, Mich., 11.01; College Hill, Cincinnati, 10.50; Duluth, 10.40; Dennison, Tex., 10.00; Cincinnati, Signal Station, 9.86; Madison, Wis., 9.31; Bethel, Ohio, 9.25; Wellsboro, Pa., 9.09; Ft. Wallace, Kan., 8.94; Cincinnati (Woodward High School) 8.79; Cedar Keys, Fla., 8.76; Cresco, Ia., 8.75; Cape Hatteras, 8.59; Ft. Hartsuff, Neb., 8.52; Alpena and Indianapolis, 8.48; Jacksonburg, Ohio, 8.35; Galveston, 8.33; Guttenburg, Ia., 8.06; Breckenridge, 7.90; Spiceland, 7.86; New Geneva, Pa., 7.69; Stanley, Ontario, 7.59; Helena, Ark., 7.47; Davenport, 7.21.

Smallest Monthly Rain-falls.—Alcatraz, San Buenventura, Pt. San Jose, San Geronio, Princeton, Salinas City, Lompoc, San Francisco, Los Angeles, Red Bluff, Sacramento and Visalia, Cal., Winnemucca, Nev., and Yuma, Ariz., none; Burkes and Tucson, Ariz., La Mesilla, N. M., and El Paso, Tex., trace; Salt Lake City, 0.01 inches; Pioche, Nev., 0.03; Hermosa, Col., and Prescott, Ariz., 0.04; Florence, Ariz., 0.05; Laredo, Tex., 0.09; Boise City, 0.11; Eagle Pass, Tex., 0.12; Ft. Fred Steele, Wy. Ty., 0.14; Ft. McDermitt, Nev., 0.15; Ft. Verde, Ariz., 0.16; Ft. Garland, Col., 0.18; Ft. Wingate, N. M., 0.19; Ft. Douglass, Utah, 0.22; Ft. Hall, Idaho, Ft. Union, N. M., and Battle Creek, Mich., 0.25; Ft. Bidwell, Cal., 0.26; Summit, Col., 0.28; Hector, N. J., 0.40; Ft. Apache, Ariz., and Helena, Mont., 0.46.

Rainy Days.—The number of days on which rain or snow has fallen, varies as follows: New England, 9 to 18; Middle Atlantic States, 6 to 15; South Atlantic States, 5 to 13; Eastern Gulf States, 8 to 19; Western Gulf States, 8 to 20; Ohio valley and Tennessee, 8 to 15; Lower Lake region, 12 to 16; Upper Lake region, 10 to 20; Upper Mississippi valley, 11 to 15; Missouri valley, 10 to 14; Red River of the North valley, 11 to 15; Eastern Rocky Mountain Slope, 4 to 12; Rio Grande valley, 1 to 4; Plateau districts, 0 to 9; California, 0 to 1; Oregon, 6 to 14.

Cloudy Days.—The number varies in New England from 5 to 11; Middle Atlantic States, 3 to 10; South Atlantic States, 2 to 11; Eastern Gulf States, 7 to 9; Western Gulf States, 0 to 8; Ohio valley and Tennessee, 4 to 11; Lower Lake region, 4 to 14; Upper Lake region, 8 to 16; Upper Mississippi valley, 7 to 11; Missouri valley, 4 to 12; Red River of the North valley, 6 to 8; Eastern Rocky Mountain Slope, 0 to 12; Rio Grande valley, 1 to 4; Plateau districts, 0 to 5; California 0 to 10; Oregon, 10 to 19.

Hail.—Ft. Hale, Dak., 23rd, stones weighing seven and one half ounces. Ft. Meade, Dak., 11th, 22nd. Ft. Niagara, N. Y., 30th. Ft. Concho, Tex., 6th. Ft. Fetterman, Wyo. Ty., 4th, 13th, 30th. Southington, Conn., 13th. Lyndon, Ill., 29th, fields of corn entirely destroyed and osage hedges stripped of their leaves; hail fell in such quantities that it was found the next day in small ravines. Laconia, Ind., 28th. Monticello, Ia., 5th, 13th. Guttenburg, Ia., 28th. Yates Center, Kans., 8th. Gardiner, Me., 21st. Fallston, Md., 12th, 25th. Rowe, Mass., 20th. Thornville, Mich., 2nd. Genoa, Neb., 5th, 11th. Princeton N. J., 21st. Ardenia, N. Y., 21st. Westerville and Jacksonburg, Ohio, 13th. Dyberry, Pa., 16th, (21st did much damage to crops.) Catawissa, Pa., 11th. Ashwood, Tenn., 30th. Salt Lake City, 4th. Pike's Peak, 20th, 22nd. Chyenne, 12th, 17th. Ft. Gibson, 7th, severely injuring vegetation, stones half inch in diameter. North Platte, 23rd, 30th. Stockton, Tex., 9th, (26th, size of walnut.) Cedar Keys, Fla., 3rd. Keokuk, 29th. Breckenridge, 4th, 22nd. St. Paul, 4th, one half inch in diameter, Milwaukee, 2nd, completely covered ground; considerable damage to vegetation. Charlotte, N. C., 29th. Augusta, Ga., 30th. Philadelphia, 21st. Albany, 20th. Mt. Washington, 16th.

Snow.—Utah, Ft. Douglass, 4th, 9th, "few flakes." California, 18th, Ft. Bidwell, Yreka, Red Bluff, "seen on high peaks of Sierra Nevada and Coast range." Oregon, 18th, Umatilla, "fell on Butter Creek hills, nine miles south of station." Colorado, Pike's Peak, 5th, 18th, 21st, 23rd, "heavy snow storm with

much electricity" 24th to 27th, 29th. *Nebraska*, North Platte, 27th, "few flakes." *New Hampshire*, Mt. Washington, 16th.

Floods.—The following is a brief account of the extensive floods of the upper Mississippi and the Ohio valleys during June, 1880. Bellevue, Ia., 4th, Maquoketa river running over its banks causing great destruction to property, a large boom at the city broke sending adrift thousands of logs, and also one at Moore's mill entailing a large loss. One steamer and a barge sunk near the city. All railroad communication seriously obstructed and one railroad bridge swept away. La Crosse, Wis., 11th, five million feet of logs carried away by high water; loss \$40,000. 17th, Mississippi river rose 13 inches in past 21 hours, water higher than since 1858; travel between North Side and Vine street depot obstructed by water to the depth of two feet, no trains arrived for 36 hours. Galena, Ill., 11th, Commerce and Washington streets nearly submerged, water around Barrows and Taylor's mill five to six feet deep. Water rose steadily in the river at the rate of half a foot an hour. Cincinnati, 14th, many cellars were flooded and streets badly washed; along the river, which rose eight feet in five hours, considerable lumber and merchandise were washed away. The damage to Miami canal was very severe. At Glendale, near Cincinnati, the entire portion of the city near the depot was flooded in less than twenty minutes. In several streets the water was waist deep and little streams in the vicinity of Mill creek were enlarged from 3 to 200 feet, and at some parts swollen to a depth of twelve feet. Jones Station, Butler county, Ohio, 14th, destruction to crops by water very great, hundreds of acres through the valley submerged. At Le Soudsville crops seriously damaged. At Port Union, large field of grain washed away, loss estimated at tens of thousands of dollars. At Overpecks Station, great damage to crops; many large bodies of water formed in vicinity. As far as Seven Mile the same disastrous results were reported. Nearly all of the railroads in Butler, Hamilton, and Clermont counties, Ohio, were seriously damaged; miles of track, heavy embankments and trestles were washed away. Several bridges were severely injured or carried away. Baltimore, Md., 12th, very heavy rain, several streets badly washed, culverts broken, cellars flooded and street railway travel seriously interfered with. Eau Claire, Wis., 15th, river at this point highest ever known, water rose 24 feet in 48 hours. The loss to lumbering interests, by the carrying away of logs, will reach one and one half millions of dollars. Mill dams and bridges all along the river were swept away. At Menomonee, Wis., the Red Cedar river rose very rapidly, causing a loss to the Cedar Falls Manufacturing Company of ten million feet of logs and their dam. At Brainerd and Fort Ripley, Crow Wing and Morrison counties, Minn., 15th, railroad and highway bridges washed away; railway tracks badly washed out and many farms near Brainerd entirely under water. Chippewa Falls, Wis., 15th, both bridges at the city were swept away and all on Duncan creek except one. Many houses in lower portion of city flooded, several million feet of logs carried away, loss one million dollars. Waupaca county, Wis., 15th, great damage to building and crops along Pigeon and Embarrass rivers. The entire grain crops throughout Embarrass valley destroyed. Clinton, Ia., 23rd to 25th, large portion of the town flooded, all saw-mills, paper-mills and sash factories closed. All railway tracks under water and warehouses approached by boat. All the islands in the vicinity were flooded and gardens, crops and other property destroyed; loss \$30,000. Warsaw, Ill., 23rd to 25th, all lumber yards submerged and mills filled to the depth of from 2 to 6 feet. Several serious breaks were made in levee below the city. The principal highway to the city was covered with four feet of water and 20,000 acres of fine farming lands eleven miles below were inundated. Thousands of acres on the Missouri side in the same condition, causing great loss to farmers. Dubuque, Ia., 23rd and 24th, river 22 feet 8 inches above low water mark and 14 inches above high water of 1870; such a body of water surpasses the memory of the oldest inhabitants. All railroad communication ceased and all machine shops and saw mills flooded and work suspended. A ferry boat was employed to transfer passengers to and from one of the hotels. All warehouses along the river were flooded and large quantities of merchandise carried away. Prairie du Chien, Wis., 23rd to 25th, river higher than ever known before. One third of the city covered with water to the depth of 6 to 8 feet. All railroad communication interrupted, about 50 miles of track were submerged and several bridges carried away. Davenport, Ia., 26th, river 18 feet 5 inches above low water mark, the highest since 1870. The city cemetery was overflowed and a number of coffins washed out. Several large mills compelled to stop work. Below the city many cultivated fields entirely submerged. Rock Island, Ill., 26th, river 17.5 feet above low water mark; large portion of the city under water; west of 9th street a large number of houses floated about from their foundations, 200 families were driven from their houses. All the western portion of the city appeared like a lake dotted with roofs of houses. The Rock Island car shops were surrounded by water and the employes were carried to and from their work in row boats. The loss to private property alone is estimated at over \$100,000. Burlington, Ia., 26th, all the bottom lands opposite the city flooded, causing vast damage to growing crops; river over eight miles wide. A vast area of fine farming country between Burlington and Iowa river completely submerged; crops almost a total loss. On the Illinois shore the water extended nearly four miles into the interior covering the entire tract of the bottom lands; loss to agricultural interests very great. Montrose, Mo., bottom lands above the town completely inundated, causing great damage to crops. Keokuk, 29th, river 18 feet 2 inches above high water mark. All railroad communication interrupted; railroad shops completely surrounded with water. Alexandria, Ia., 23rd to 25th, highest water since the great flood of 1876. Southern part of the city partly submerged and the bottom land in that vicinity covered with water, causing great damage to growing crops. A large quantity of wood was swept away from Watson's island, which was entirely covered with water. On June 30th, at 3 a. m., the Sny levee, below Quincy, Ill., broke between East Hannibal and Cincinnati landing. The crevasse during the day obtained a width of half a mile. Fully two hundred thousand acres of the finest farming land, all un-

der cultivation, was flooded. The levee protected a piece of country forty miles long by from four to ten miles wide. Three persons were drowned. Much stock was lost and great damage done to corn and hay, the wheat having generally been harvested. Estimated loss over one hundred thousand dollars. *Oregon and Washington Territory*, 27th to 30th, lower part of Portland, Oregon, flooded; many streets and stores flooded; much damage to growing crops in lower Columbia and Willamette valleys. 30th, the bottoms between Clackamas river and Oregon City overflowed, doing much damage. Sauvie Island and Columbia slough and all farms on west bank of Willamette river completely submerged. The town of Freeport, W. T. and all surrounding flat country under water, driving residents to the hills for safety. The whole country around Monticello, W. T., submerged, doing much damage to growing crops. 28th to 30th, three miles of railway, between The Dalles and Celilo, under water. 29th, unprecedented flood in Cowlitz's river, W. T., water three feet higher than ever before known. At railroad bridge, twenty miles above its mouth, river sixteen and a-half feet above low water. Northern Pacific railway, between Kalama and Cowlitz, under water for a distance of fifteen miles. Lewiston, Idaho, 27th, Snake river four inches above extreme high water of 1876. 30th, Wallula, W. T., river at a stand, one foot and eleven inches below high water of 1876. Skagit river, W. T., (no date given) higher than ever before known. The dike on the river broke, doing great damage to crops. June 30th, at Portland, Or., river reached twenty-seven feet four inches, (within one inch of high water of 1876,) overflowing Front and First streets, doing many thousand dollars worth of damage. The Dalles, Or., 26th, to 28th, all of Front street under water, flooding the principal hotels and stores of the city. 28th, river above high water of 1871 and near that of 1876; greater part of railway track under water; loss and damage by flood very great.

Droughts.—*New Jersey*, exceedingly severe in Bergen, Passaic and Essex Counties. 30th, Hackensack and Mount Claire, water for domestic purposes very scarce. Atco, very dry, crops much injured, wells failing. Somerville, drought for past two months, very injurious to hay. Freehold, very dry, crops suffering. *New Hampshire*, 13th to 20th, Auburn, very severe. *New York*, 30th, Hector, drought very severe. White Plains, "drought commenced on last day of April and has continued to July 1st, during which time (62 days,) only 1.43 inches of rain fell; all vegetation is suffering severely." *Georgia*, 23rd, Augusta, very severe, injuring gardens and crops. *Kansas*, 15th, Creswell, small streams nearly all dry. *Maryland*, 29th, Sandy Springs, wheat crop very poor, owing to severe drought. *Massachusetts*, 26th, Springfield, vegetation suffering. Connecticut river very low, only 13 inches above low water.

Rain-fall During May, Received too late to be used in May Review.—*Arizona*: Whipple Barracks, Ft. Lowell, Ft. Bowie, Ft. McDowell, Ft. Verde, Ft. Apache and Ft. Mojave, 0.00; Wickenburg, 0.17. *California*: Benicia Barracks, 0.84; Angel Island, 1.14; Alcatraz, 0.95; Presidio, S. F., 0.88; Ft. Yuma, 0.00; Ft. Gaston, 3.48; Ft. Bidwell, 1.38. *Colorado*: Ft. Lyons, 1.09. *Dakota*: Ft. Randall, 6.21; Ft. Stevenson, 3.29; Ft. Sisseton, 3.50; Ft. Sully, 1.88; Ft. Totten, 4.38; Ft. Hale, 3.68. *Idaho*: Ft. Lapwai, 2.40. *Montana*: Ft. Benton, 1.54; Ft. Shaw, 2.36; Ft. Ellis, 7.13; Ft. Logan, 2.58; Ft. Assiniboine, 0.79. *Nebraska*: Camp Sheridan, 1.60. *Nevada*: Ft. McDermitt, 0.39; *Oregon*: Ft. Stevens, 4.91; Ft. Klamath, 1.24; Ft. Harney, 0.72. *Texas*: Rio Grande City, 1.64; Brownsville, 1.56. *Washington Ty.*: Ft. Canby, 5.22; Ft. Townsend, 2.20; Neah Bay, 6.62; Bainbridge Island, 3.20. *Wyoming*: Ft. Fred. Steele, 0.78.

RELATIVE HUMIDITY.

The percentages of mean relative humidity for the month range as follows: New England, from 62 to 86; Middle Atlantic States, 57 to 87; South Atlantic States, 57 to 80; Eastern Gulf States, 65 to 77; Western Gulf States, 68 to 73; Ohio valley and Tennessee, 61 to 72; Lower Lake region, 63 to 73; Upper Lake region, 68 to 81; Upper Mississippi valley, 63 to 69; Missouri valley, 62 to 69; Red River of the North valley, 75; Eastern Rocky Mountain Slope, 20 to 68; Rio Grande valley, 49 to 74; Plateau districts, 17 to 43; California, 36 to 76; Oregon, 39 to 63. *High stations* report the following averages not corrected for altitude: Pike's Peak, 48.2; Mt. Washington, 82.3 per cent.

WINDS.

The prevailing direction of the wind during the month of June, 1880, is shown, by arrows flying with the wind, on chart No. II. The prevailing direction along the entire Atlantic slope and in the Lake region was southwest; in the great central valleys south; in Texas southeast. To the westward of 102° W. the prevailing direction was northerly to the northward of the parallel 40°, and southwesterly to the southward of that parallel. The prevailing directions on Mt. Washington NW., and Pike's Peak SW., were normal.

The maximum velocities per hour are generally given in the description of the areas of low pressure. The following are the maximum velocities exceeding 50 miles per hour that have been reported during June, 1880: Madison, Wis., 50 S.; St. Louis, 52 S.; Dodge City, 52 NW.; Kittyhawk, 52 NE.; Delaware Breakwater, 54 NW.; Breckenridge, 56 NE.; Portsmouth, N. C., 56 NW.; Omaha, 60 NW.; North Platte, 62 N.; Cape Henry, 64 NW.; Mt. Washington, 70 NW., and Pike's Peak, 72 SW.

Total Movements of the Air.—The following are among the largest total movements in the various districts: Pike's Peak, 12,978; Cape Lookout, 12,940; North Platte, 12,580; Fort Stockton, 10,581; Delaware Breakwater, 9,643; Umatilla, 9,136; San Francisco, 9,098; Indianola, 8,453; Sandusky, 8,363; Milwau-